

REMARKS

In the *Final Office Action* of April 18, 2006, the Examiner rejected claims 1-6 over US Patent No. 5,252,663 to *Chandran et al.* in view of United States Patent No. 5,633,334 to *Walker et al.* (and vice versa). In this submission, Claims 2-6 and Claims 12-19 have been canceled without prejudice. The limitations of previously submitted claim 19 have been incorporated into claim 1 by amendment. Accordingly, all remaining claims (1 and 20-23) are directed to cigarette filters that have a nonwoven fabric which includes a protective colloid stabilizer. Entry of the foregoing amendments is warranted as the amendments fully comply with Rule 116; no new subject matter has been introduced in the claims. Moreover, the amendments are believed to place this application in condition for allowance and, in any event, the amendments place this application in better condition for appeal.

Applicant requests the withdrawal of all grounds of rejection for claims 1 and 20-23 and allowance of this case for the reasons discussed below.

Claims 1 and 20-23 are directed to cigarette filters having emulsion binders. As stated in the pending application, and the *Declaration of Paul Scott* submitted on January 17, 2006, the invention provides cigarette filters which have high strength values, low amounts of dust, and meet regulatory requirements such as health codes. *See, Declaration of Paul Scott* at paragraph 3. Additionally, the present invention enables cigarette filters which include consolidated cellulosic fluff pulp fibers. This is desirable as it eliminates many of the health and safety problems associated with traditional cellulose acetate fibers. *See, pending application* at p. 4, lines 10+. Claim 1 is reproduced below:

Claim 1. A cigarette filter that includes a nonwoven fabric that is made by a process which comprises the steps of forming a web of fibers, and optionally other filling components, via the latex bonded airlaid or multibonded airlaid method and coating the web with an aqueous based polymer binder comprising one or more polymer compositions and one or more stabilizing agents, where the stabilizing agent is present in amounts of from 1 to 15 parts per hundred weight monomer based on the monomer content of the polymer composition, and wherein the nonwoven fabric comprises in the range of about 30 to about 2 parts by dry weight of the binder and in the range of about 70 to about 98 parts by dry

weight of the fibers and other filling components, and wherein the binder, fibers and filling components are acceptable for use in cigarette filter applications.

In contrast to the claimed invention, the *Chandran et al.* and *Walker et al.* references are in no way suggestive of using nonwoven webs in cigarette filters. Indeed, the references never mention cigarette filters. Furthermore, the cited references actually disclose resin compositions that would not likely be used in cigarette filter materials.

For example, the *Chandran et al.* reference discloses the use of an emulsion resin for nonwovens or wood adhesives, where the resin is generally polymerized using substantial amounts of anionic and nonionic surfactants. *See*, examples of *Chandran et al.* Accordingly, these compositions would be unacceptable for cigarette filters, where regulations expressly forbid the use of surfactants in binding resins. *See*, pending application at p. 7, lines 7-10. In this regard, claim 23 is believed clearly patentable, as it recites that the polymer binder is substantially free of surfactants.

The *Walker et al.* reference cited by the Examiner does not even disclose that the polymers described therein are useful in nonwoven applications, let alone for use in cigarette filters. Instead, the *Walker et al.* reference appears to use the emulsion resin as an adhesive for paperboard. The *Walker et al.* also teaches that the resins may be polymerized in the presence of surfactants. *See*, *Walker et al.* at col. 3, line 4.

In obviousness determinations, the prior art must support each element of each claim. *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1443 (Fed. Cir. 1991). Here, the use of emulsion bonded nonwoven webs in cigarette filters is not at all suggested by the art. Accordingly, the final rejection should be withdrawn and this case should be passed to issue.

This response is being believed timely filed. If any additional extensions are required, please consider this paper a *Petition* thereof and charge our Deposit Account No. 50-0935.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'A. Webb', followed by a long horizontal line extending to the right.

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